--BEFORE THE FEDERAL COMMUNICATIONS COMMISSION–

Washington, D.C. 20554

In the matter of Unbundled Access to Network Elements	**)**	
Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers	**)**	**WC Docket No. 04-313**
	)	**CC Docket No. 01-01-338**

COMMENTS OF THE UTAH DIVISION OF PUBLIC UTILITIES

October 4, 2004

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EXECUTIVE SUMMARY

The Utah Division of Public Utilities ("DPU") respectfully submits its comments concerning the "Order and Notice of Proposed Rulemaking" WC Docket 04-313, CC Docket No. 01-338 released August 20, 2004. The DPU used state specific data (2004 Legislative Annual Report) as support for its viewpoint in this document. The DPU provides comments on the issues it believes to be of critical importance. Overall, the DPU believes that UNE-P is essential in the preservation and further advancement of competition in the telecommunications market within the State of Utah.

The following facts underscore critical points asserted in this document.

- **In Utah, UNEs account for approximately 55% of the total access lines provided by CLEC's.**
- **76,942 lines (48%) of total CLEC UNEs are leased via UNE-P.**
- **91 percent of UNE CLEC's residential lines are provided via UNE-P.**
- **26 percent of total CLEC access lines are provided via UNE-P.**
- **CLECs have only 15% of the residential market, but 47% of the business market.**
- **Intermodal cable competition is provided by one company in Utah, exists only in small pockets, and is not ubiquitous to the entire state.**
- **It is imperative to maintain switching as an essential element.**
- **The Wire Center is viewed as the appropriate tool for market analysis.**
- The MSA should not be used to develop market definition as it is a federal construct and does not reflect granularity.
- **Development of UNE rates should remain with the State Commissions using FCC guidelines.**

The Utah Division of Public Utilities ("DPU") is located in the Department of Commerce and functions as the investigative agency for the Utah Public Service Commission ("PSC"). The DPU may "commence original proceedings, file complaints, appear as a party, present factual information and evidence, examine witnesses, advocate policy recommendations, commence appeals, and otherwise participate in proceedings before the PSC." The DPU also receives and investigates consumer complaints, and monitors utility operations to ensure compliance with PSC rules, regulations, and orders. The DPU respectfully submits their comments concerning the "Order and Notice of Proposed Rulemaking" WC Docket 04-313, CC Docket No. 01-338 released August 20, 2004.

I - UTAH TRIENNIAL REVIEW ORDER (TRO)EVIDENCE AND PROCEEDINGS HISTORY

The following briefly summarizes the actions taken by the Utah Public Service Commission ("PSC") in response to the TRO proceedings. The PSC issued interrogatories to the competitors and the incumbent that, in general, sought information concerning switching, customers, access lines, and other technical questions. Contemporaneously, Qwest filed testimony, and rebuttal testimony was filed by numerous competitors operating in Utah. When the Court issued a stay to the FCC's TRO the Commission suspended the Docket. This postponed testimony filing by the Division staff. The Commission conducted a technical conference concluding that, as a result of the scarce resources of all participating parties, all investigation would be suspended until the stay was lifted. As a consequence, a verified record of evidence for the State of Utah was not established. However, the Division is relying on other comprehensive studies of the telecommunication market in Utah to support its comments on this NPRM.

II - THE CRITICAL NATURE OF UNE-P TO MARKET DEVELOPMENT

The DPU believes that the effect of the transitory UNE-P phase out and, ultimately, the eradication of UNE-P may significantly hinder competition in the Utah telecommunications market. **The elimination of UNE-P, especially within the residential market in Utah, may reverse the progress of competition and provide the incumbent with the vast majority of residential access lines. With UNE-P the operational and economic disadvantages associated with the manual provisioning systems, such as batch hot cuts, without UNE-P costs will escalate quickly. This means that customers can only be migrated to CLEC networks in quantities that make mass market competition feasible when UNE-P is available. For most competitors, it may not be economically feasible to stay in the market if UNE-P as a market entry option is eliminated.**

A - Utah UNE Statistics

Competition in Utah's telecommunications market has progressively emerged over the last five years. The Utah telecommunications market has numerous competitors providing phone service via UNE-P. To date, competitors possess 15 percent of the residential market share and 47 percent of the business share in Utah. In Utah, competition will most likely be suppressed if UNE-P is eliminated. Graphs 1 & 2 illustrate the percentage of CLEC lines using UNEs in Utah. As of June 2004, UNEs accounted for approximately 55 percent of total access lines provided by CLEC's. Of that 55 percent, approximately 76,942 lines or 48 percent are provided via UNE-P. Within the residential market, 91 percent of UNE CLEC residential access lines are provided via UNE-P. These statistics show, the platform is a critical element for many competitors within the State of Utah. Companies whose business plans start by leasing UNEs then, may eventually invest in their own facilities; however without UNE-P they may exit the market, obstructing the future of facilities-based competition.

Graph 1 **Graph 2**

III -RELEVANCE OF SWITCH TO UNE-P

From a technical aspect, a switch can serve either the enterprise or mass markets, the equipment does not differentiate; however, there may be a need to augment the switch to accommodate the additional traffic that would be expected when serving the mass market.

Currently, in Utah, there are seven CLEC's that provide their own switching. Five of those companies are serving the enterprise market exclusively, one is serving both enterprise and mass market, and one is exclusively serving the mass market.

When a CLEC elects to begin offering mass market telephone service it is, in most cases, necessary to augment some software and hardware portions of the switch. It is an economic decision for the CLEC as to how it wants to approach the market. Generally, CLEC's choose to purchase UNE-P from the ILEC until it is economically viable to purchase its own switch. This being said, Utah does have one CLEC that is providing switching to another CLEC. This is a unique situation, but demonstrates that switching provided by the ILEC or another source is essential for entry into the telecommunications market.

Switching, as an unbundled element, is the key to providing telephone service to end-users. Furthermore, one can't assume that even though a CLEC has switching for the enterprise market that it is economically viable for them to enter the mass market using the same switch.

The "Switch" UNE has been ordered to be provided by the PSC, and has been TELRIC priced. The "Switch" UNE should remain intact until the competitive market matures. In this proceeding, if

the FCC elects to eliminate switching as an UNE, and thus UNE-P, new CLECs may be impaired from entering the market. Competition at the mass market level may disappear.

IV - INTERMODAL COMPETITION IN UTAH

In the state of Utah there is some intermodal competition that exists, but it is only in certain pockets and not ubiquitous to the entire state. Currently, there is only one company that competes with the ILECs in the state using cable technology. With only one competitor who offers service in very specific geographic locations, it would be a fallacy to determine that every person within an urban location in Utah is able to obtain service using an intermodal competitor. There are pockets within the market where competition exists. However, there are still urban areas where without the existence of UNE-P, competition would be sparse at best and non-existent in other situations.

V - WIRE CENTER - THE APPROPRIATE TOOL FOR EXAMINATION

In response to the FCC's request for comment on the relevant geographic market, it is the DPU's position that the appropriate telecommunication market definition should be the boundaries for each wire center. The wire center is the natural administrative unit for which most of the telecommunication data is collected and analyzed and, most importantly, best indicates where CLEC's are actually serving customers. Conversely, data for MSA's, if collected and analyzed, is simply data collected by wire center and then aggregated.

In Utah, the wire centers are generally and sensibly used as the proper market boundaries. Qwest's wire centers, for instance, have been used as the basis for the company's previous filings for pricing flexibility, and are also used as the benchmark for the Utah PSC's Annual Report to the Legislature, Tariffs filings, universal service and collocation. The wire center is therefore the most practical and efficient mode of analysis used in Utah.

VI - MSA'S SHOULD NOT BE USED AS THE TELECOMMUNICATION MARKET BOUNDARY

The MSA is not a telecommunications construct, and the geographic area bears no relation to telecommunications technologies. The MSA is used as a federal policy construct and does not reflect the granularity of using all available evidence in defining a market to which the state has access. Most importantly, the MSA does not represent the architectural layout of the telecommunications network..

There are numerous difficulties in using MSA's as the definition for a telecommunications market. Appendix D illustrates the geographical problems that arise in Utah. Located in this table are the 5 MSA's located in Utah (although the Logan MSA is partially located in Franklin County Idaho). Of the 28 counties in Utah, only 10 are included in an MSA. Also illustrated in the Appendix D is the exclusion of several areas or counties from any MSA. Many communities within Utah are not included within an MSA, and these communities therefore would not be included in a telecommunications analysis. Both Cedar City (Iron County) and Brigham City (Box Elder County) are left out of an MSA but have significant competition and several competitive providers in their area. [see Appendix A, Wire Center by MSA]

Analyzing the competition in an MSA does not actually reflect the competition in the entire area. The Salt Lake MSA, for instance, is comprised of 14 wire centers, 4 of which are outside Salt Lake County. The competitors' market share within the Salt Lake MSA is 52 percent business and 16 percent residential; however, competition within the wire centers varies widely. For example, the aggregate MSA market share understates the competition in Midvale Wire Center, 69 percent business & 22 percent residential, and fails to indicate that other LECs are directly competing with the incumbents. On the other hand, the same aggregate data overstates competition in Grantsville, Tooele, and Alta, communities with very few competitors. These communities have residential market shares of 3 percent, 4 percent, and 5 percent, and business shares of 8 percent, 18 percent, and 15 percent, respectively. Entry into

a non-telecommunication defined geographic region or MSA will not occur all at once and, most likely, may never occur at all [See Appendix B & C]. An MSA can be further affected by population density due to many factors such as the mix of customers, de-averaged UNE rates, (A Utah MSA could have three different rates for a single UNE due to the large geographic size of the MSAs in Utah.) and other costs. As illustrated in appendix C, the population densities vary greatly.

The competitors, for numerous reasons, encounter various entry barriers that differ by wire center. For example, the loop densities, the number of customers served by the wire center, and revenues received can simply be too small to support multiple switch-based carriers with existing technology. Risks involved may be too great for a CLEC to enter the market. The UNE rates, for example, can also vary substantially between wire centers, and may be too high to support competitive entry in some areas. Similarly, retail rates can effectively differ between wire centers that serve primarily residential versus business customers, and the cost of providing switching to each wire center based on the distance of competitive switches will vary. The availability and cost of collocation can vary by wire center, as can the availability and price of transport required to reach each wire center. All things considered, an MSA includes an immense amount of variance concerning price, customers, and technology thus making it illogical an inappropriate to be defined as a market.

VI -COST BASED RATES; ARE THEY "FAIR & REASONABLE IN UTAH"

The Utah Public Service Commission has been expedient in the facilitation of four cost dockets to established UNE rates using the TELRIC principles. The Dockets are as follows:

Docket 94-999-01: (Order Issued 1999) This Docket was the initial proceeding following the FCC's First Report and Order establishing a methodology to set UNE rates. The Docket was divided into three phases and extended over a three-year period. In this Docket the appropriate Cost Proxy Model was chosen to be used in the development of the Loop, Switching and Transport rates. Moreover, in this Docket rates were set for Loop, Switching and Transport.

Docket 00-049-106: (Order issued 2001) Set Collocation rates. **Docket 00-049-105**:(Order issued 2003) This docket set both recurring and nonrecurring rates for all UNEs, identified at the time. The UNE rates for Loop, Switching, Transport and Collocation were not addressed in this Docket. **Docket 01-049-85:** (Order issued 2003) This docket was opened to revisit the development of rates for Loop and Switching due to changes made to the Cost Proxy Models over the years. In this Docket, a different Cost Proxy Model from prior dockets was used, with adjustments, to develop the latest UNE Loop and "flat-rated" switch rate. Moreover a new Model was chosen, because the development of the UNE recurring and nonrecurring docket (00-049-105) revealed that the loop rate being used might be high based on model refinement and new information that was introduced.

In all of the proceedings listed above, CLEC's and Qwest participated along with the Division and the Committee of Consumer Services. All participants filed written and oral testimony, along with various position Briefs. Full participation by all parties assured that TELRIC Principles, as outlined by Congress, were adhered to and the resulting rates are TELRIC compliant. The UNE rates are currently published in Qwest's Utah "Generally Available Terms and Conditions" (SGAT), Exhibit A.

Based on UNE rates that have been set by the Utah Public Service Commission, following FCC direction, the development of a competitive market has proceeded in a timely manner in Utah, indicating that UNE rates appear to be set at a "just and reasonable" level.

On another note, if the FCC chooses to restructure its methodology for conducting TELRIC cost studies, it would be beneficial to the States for the FCC to provide guidelines on the development of the appropriate expense factors, along with switch fill percentages, plant fill percentages, structure sharing and placement percentages. This approach would assist in removing company biases from the TELRIC cost model development. Using the TELRIC methodology to develop "cost based" UNE prices works when the appropriate factors and percentages are input into the model. When the companies try to mask the real cost of network elements, undercut expense factors and adjust percentages for the sole purpose of developing

low UNE rates the resulting prices are too low or too high. In partnership with the states, the FCC could induce incentives or guidelines that would encourage ethical participation by the ILEC's and CLEC's in the cost modeling endeavor.

APPENDIX A

Salt Lake MSA

Counties Included in the Salt Lake MSA	Wire Centers Included
Salt Lake County	Alta
	Cottonwood
	Draper
	Holladay
	Kearns
	Magna
	Midvale
	Murray
	Riverton
	Salt Lake East
	Salt Lake Main
	Salt Lake South
	Salt Lake West
	Salt Lake North
	West Jordan
	West Valley City
Summit County	Park City
Tooele County	Tooele
	Grantsville

Ogden-Clearfield MSA

Counties Included in the Ogden-Clearfield MSA	Wire Centers Included
Davis County	Bountiful
	Clearfield
	Farmington
	Kaysville
	Layton
Morgan County	Morgan
	Mountain Green
Weber County	Huntsville
	Ogden Main
	Ogden North
	Ogden South
	Ogden West
	Roy

Provo-Orem MSA

Counties Included in the Provo-Orem MSA	Wire Centers Included
Juab County	Nephi
Utah County	American Fork
	Lehi
	Orem
	Payson
	Pleasant Grove
	Provo
	Salem
	Santaquin
	Spanish Fork
	Springville

Logan MSA

Counties Included in the Logan MSA	Wire Centers Included
Cache County	Hyrum
	Logan
	Richmond
	Smithfield
Franklin County, Idaho	

St. George MSA

Counties Included in the St. George MSA	Wire Centers Included
Washington County	Hurricane
	Leeds
	Springdale
	St. George
	Veyo

Wire Centers Not Included In an MSA

Counties Included in the St. George MSA	Wire Centers Included
Washington County	Beaver
	Brigham City
	BrianHead
	Cedar City
	Corrine
	Parawon
	Salina
	Monroe
	Richfield
	Heber City

Appendix B

Table A1 - Utah's Local Service Market 2004

Exchange Area	Competitors Present	Percentage of Lines Provided By CLECs	
		Residential	Business
Alta	American Fiber Networks, AT&T Communications, Level 3, Qwest, XO Utah	4.4	15.4
American Fork	1-800-Reconex, ACN Communications, AT&T Communications, Comcast, *DIECA, Electric Lightwave, Eschelon, Excel, First Digital, Granite Telecom, Integra, Level 3, MCI Metro Access, McLeodUSA, *New Edge Networks, Qwest, Sprint, Tel-West, Vartec, XO Utah, Z-Tel	7.5	38.9
Beaver	1-800-Reconex, ACN Communications, AT&T Communications, Comm South, Level 3, McLeodUSA, Qwest, Sprint, Z-Tel	3.5	15.6
Bountiful	1-800-Reconex, ACN Communications, AT&T Communications, Bulls Eye Telecom, Ceristar, Comcast, Comm South, *DIECA, Electric Lightwave, Eschelon, Excel, Granite Telecom, Integra, Level 3, MCI Metro Access, McLeodUSA, Qwest, SBC, Sprint, *Suburban Access, TCG of Utah, Vartec, XO Utah, Z-Tel	11.1	42.8
Brianhead	AT&T Communications, Comm South, Excel, McLeodUSA, Qwest	0.3	8.3
Brigham City	1-800-Reconex, ACN Communications, AT&T Communications, Comm South, Electric Lightwave, Eschelon, Excel, Integra, Level 3, McLeodUSA, *New Edge Networks, Qwest, Sprint, Z-Tel	8.2	40.3
Cedar City	1-800-Reconex, ACN Communications, AT&T Communications, Comm South, Electric Lightwave, Eschelon, Excel, Granite Telecom, Integra, Level 3, McLeodUSA, *New Edge	3.9	30.3

	Networks, Qwest, Sprint, Z-Tel		
Clearfield	1-800-Reconex, ACN Communications, American Fiber Networks, AT&T Communications, Brooks Fiber, Bulls Eye Telecom, Ceristar, Comcast, Comm South, *DIECA, Electric Lightwave, Eschelon, Excel, Granite Telecom, Integra, Level 3, MCI Metro Access, McLeodUSA, *New Edge Networks, Qwest, SBC, Sprint, *Suburban Access, TCG, Tel-West, Vartec, XO Utah, Z-Tel	12.2	42.7
Corrine	Qwest	0.0	0.0
Cottonwood	Brooks Fiber, Comm South, *DIECA, Electric Lightwave, Eschelon, Excel, First Digital, MCI Metro Access, McLeodUSA, Qwest, Sprint, *Suburban Access, Vartec, XO Utah	4.7	65.0
Draper	Brooks Fiber, Comm South, *DIECA, Electric Lightwave, Eschelon, Excel, First Digital, MCI Metro Access, McLeodUSA, Qwest, Sprint, Vartec, XO Utah	5.1	43.7
Farmington	1-800-Reconex, ACN Communications, AT&T Communications, Comm South, Electric Lightwave, Eschelon, Excel, First Digital, Integra, MCI Metro Access, McLeodUSA, Qwest, Sprint, TCG of Utah, Vartec, XO Utah, Z-Tel	11.6	28.8
Grantsville	Excel, McLeodUSA, Qwest, Sprint	3.0	8.5
Heber City	1-800-Reconex, ACN Communications, AT&T Communications, Eschelon, Excel, Granite Telecom, McLeodUSA, Qwest, Sprint, Tel-West	5.3	26.5
Holladay	1-800-Reconex, ACN Communications, American Fiber Networks, AT&T Communications, Comcast, Comm South, *DIECA, Electric Lightwave, Eschelon, Excel, Granite Telecom, Integra, Level 3, MCI Metro Access, McLeodUSA, Qwest, SBC, Sprint, TCG of Utah, Vartec, XO Utah, Z-Tel	16.0	54.6
Huntsville	1-800-Reconex, Comm South, Eschelon, MCI Metro Access, McLeodUSA, Qwest, Sprint	5.1	17.6
Hurricane	1-800-Reconex, ACN Communications, AT&T Communications, Comm South, Eschelon, Excel,	7.1	22.5

	McLeodUSA, Qwest, Sprint, Z-Tel		
Hyrum	1-800-Reconex, ACN Communications, AT&T Communications, Excel, Integra, McLeodUSA, Qwest, Tel-West, Z-Tel	12.5	34.7
Kaysville	1-800-Reconex, ACN Communications, AT&T Communications, Comm South, *DIECA, Electric Lightwave, Eschelon, Excel, Granite Telecom, Integra, Level 3, MCI Metro Access, McLeodUSA, *New Edge Networks, Qwest, SBC, Sprint, TCG of Utah, Tel-West, Vartec, XO Utah, Z-Tel	10.8	44.9
Kearns	1-800-Reconex, ACN Communications, AT&T Communications, Comcast, Comm South, *DIECA, Electric Lightwave, Eschelon, Excel, Granite Telecom, Integra, Level 3, MCI Metro Access, McLeodUSA, Qwest, SBC, Sprint, TCG of Utah, Vartec, XO Utah, Z-Tel	31.3	41.8
Layton East	1-800-Reconex, Electric Lightwave, Eschelon, MCI Metro Access, McLeodUSA, Qwest, Sprint, Tel-West, XO Utah	3.6	63.4
Leeds	Comm South, Excel, Qwest	0.2	2.9
Lehi	1-800-Reconex, ACN Communications, AT&T Communications, Comm South, Electric Lightwave, Eschelon, Excel, Granite Telecom, Integra, Level 3, McLeodUSA, Qwest, Sprint, TCG of Utah, Vartec, XO Utah, Z-Tel	8.7	46.7
Logan	1-800-Reconex, ACN Communications, AT&T Communications, Comm South, Electric Lightwave, Eschelon, Excel, Granite Telecom, Integra, Level 3, McLeodUSA, *New Edge Networks, Qwest, Sprint, Tel-West, Z-Tel	8.8	32.2
Magna	1-800-Reconex, ACN Communications, AT&T Communications, Brooks Fiber, Comcast, Comm South, Electric Lightwave, Eschelon, Excel, Integra, MCI Metro Access, McLeodUSA, Qwest, SBC, Sprint, TCG of Utah, XO Utah	24.9	28.4
Midvale	1-800-Reconex, ACN Communications, American Fiber Networks, AT&T Communications, Brooks Fiber, Bulls Eye Telecom, Ceristar, Comcast, Comm South,	22.4	69.3

	*DIECA, Electric Lightwave, Eschelon, Excel, First Digital, Granite Telecom, Integra, Level 3, MCI Metro Access, McLeodUSA, Qwest, SBC, Sprint, TCG of Utah, Vartec, XO Utah, Z-Tel		
Monroe	1-800-Reconex, ACN Communications, AT&T Communications, Comm South, Excel, Level 3, Quantum Shift, Qwest,	5.6	45.0
Morgan	1-800-Reconex, ACN Communications, AT&T Communications, Electric Lightwave, McLeodUSA, Qwest	7.1	30.4
Mountain Green	Excel, Qwest, Sprint	0.6	0.0
Murray	1-800-Reconex, ACN Communications, American Fiber Networks, AT&T Communications, Brooks Fiber, Bulls Eye Telecom, Ceristar, Comcast, Comm South, *DIECA, Electric Lightwave, Eschelon, Excel, First Digital, Granite Telecom, Integra, Level 3, MCI Metro Access, McLeodUSA, Quantum Shift, Qwest, SBC, Sprint, TCG of Utah, Vartec, XO Utah, Z-Tel	22.2	51.8
Nephi	1-800-Reconex, ACN Communications, AT&T Communications, Comm South, Excel, Granite Telecom, Level 3, McLeodUSA, Qwest, Sprint	6.1	16.5
Ogden	1-800-Reconex, ACN Communications, American Fiber Networks, AT&T Communications, Brooks Fiber, Bulls Eye Telecom, Ceristar, Comcast, Comm South, *DIECA, Electric Lightwave, Eschelon, Excel, First Digital, Granite Telecom, Integra, Level 3, MCI Metro Access, McLeodUSA, *New Edge Networks, Qwest, SBC, Sprint, TCG of Utah, Tel-West, Vartec, XO Utah, Z-Tel	23.0	47.3
Orem	1-800-Reconex, Ceristar, Comm South, *DIECA, Electric Lightwave, Eschelon, Excel, Granite Telecom, MCI Metro Access, McLeodUSA, *New Edge Networks, Qwest, Sprint, Vartec, XO Utah, Z-Tel	2.1	37.6
Park City	1-800-Reconex, ACN Communications, All West Utah, American Fiber Networks, AT&T Communications, Brooks Fiber, Comcast, Comm South, *DIECA, Electric Lightwave, Eschelon, Excel, Granite Telecom, Integra, Level 3,	7.8	34.6

	McLeodUSA, Qwest, Sprint, *Suburban Access, XO Utah, Z-Tel		
Parowan	1-800-Reconex, AT&T Communications, Comm South, Excel, Level 3, McLeodUSA, Qwest, Sprint, Z-Tel	3.6	26.2
Payson	1-800-Reconex, ACN Communications, AT&T Communications, Comm South, Electric Lightwave, Excel, Integra, MCI Metro Access, McLeodUSA, Qwest, Sprint, Vartec, XO Utah, Z-Tel	11.8	26.6
Pleasant Grove	1-800-Reconex, ACN Communications, AT&T Communications, Bulls Eye Telecom, *DIECA, Electric Lightwave, Eschelon, Excel, Integra, MCI Metro Access, McLeodUSA, *New Edge Networks, Qwest, Sprint, Vartec, XO Utah, Z-Tel	9.0	39.4
Provo	1-800-Reconex, ACN Communications, American Fiber Networks, AT&T Communications, Bulls Eye Telecom, Ceristar, Comcast, Comm South, *DIECA, Electric Lightwave, Eschelon, Excel, Granite Telecom, Integra, Level 3, MCI Metro Access, McLeodUSA, *New Edge Networks, Qwest, Sprint, TCG of Utah, Tel-West, Vartec, XO Utah, Z-Tel	40.0	48.8
Richfield	1-800-Reconex, ACN Communications, AT&T Communications, Comm South, Eschelon, Excel, Granite Telecom, Level 3, McLeodUSA, Qwest, Z-Tel	4.2	21.0
Richmond	1-800-Reconex, ACN Communications, AT&T Communications, Excel, Level 3, McLeodUSA, Qwest, Sprint	9.1	46.6
Riverton	*DIECA, Electric Lightwave, Eschelon, Excel, MCI Metro Access, MCI Metro Access, McLeodUSA, Qwest, Sprint, Vartec, XO Utah	4.2	33.5
Salem	1-800-Reconex, Comm South, McLeodUSA, Qwest, Sprint, *Suburban Access	2.4	16.6
Salina	1-800-Reconex, ACN Communications, AT&T Communications, Comm South, Level 3, McLeodUSA, Qwest, Sprint	4.0	15.0
	1-800-Reconex, ACN Communications,		

Salt Lake	American Fiber Networks, AT&T Communications, Brooks Fiber, Bulls Eye Telecom, Ceristar, Comcast, Comm South, *DIECA, Electric Lightwave, Eschelon, Excel, First Digital, France Telecom, Granite Telecom, ICG Communications, Integra, Level 3, MCI Metro Access, McLeodUSA, Quantum Shift, Qwest, SBC, Sprint, TCG of Utah, Tel-West, Universal Access, Vartec, XO Utah, Z-Tel	15.7	51.3
Santaquin	Excel, McLeodUSA, Qwest, Sprint, Vartec	0.7	16.2
Smithfield	1-800-Reconex, ACN Communications, AT&T Communications, Excel, Level 3, McLeodUSA, Qwest, Sprint, TCG of Utah	10.6	33.3
Spanish Fork	1-800-Reconex, ACN Communications, AT&T Communications, Ceristar, Comcast, Electric Lightwave, Eschelon, Excel, Integra, McLeodUSA, Qwest, Sprint, TCG of Utah, Tel-West, Vartec, XO Utah, Z-Tel	14.2	31.5
Springdale	AT&T Communications, Comm South, McLeodUSA, Qwest	2.7	8.3
Springville	1-800-Reconex, ACN Communications, AT&T Communications, Comm South, Electric Lightwave, Excel, Integra, MCI Metro Access, McLeodUSA, *New Edge Networks, Qwest, Sprint, Vartec, XO Utah, Z-Tel	10.1	33.2
St. George	1-800-Reconex, ACN Communications, American Fiber Networks, AT&T Communications, Comm South, *DIECA, Electric Lightwave, Eschelon, Excel, Granite Telecom, Integra, Level 3, MCI Metro Access, McLeodUSA, *New Edge Networks, Quantum Shift, Qwest, Sprint, Vartec, Z-Tel	11.5	25.9
Tooele	1-800-Reconex, ACN Communications, AT&T Communications, Comm South, Electric Lightwave, Eschelon, Excel, Integra, Level 3, McLeodUSA, Qwest, Sprint, *Suburban Access, Tel-West, XO Utah	7.2	17.7
Veyo	Comm South, Excel, Qwest, Sprint	0.3	2.3
Washington	MCI Metro Access, Qwest, Sprint	0.9	0.1
	1-800-Reconex, Brooks Fiber, Comm South,		

West Jordan	Eschelon, Excel, MCI Metro Access, McLeodUSA, Qwest, Sprint, Tel-West, Vartec, XO Utah, Z-Tel	7.9	29.4

*Provide DSL service only

APPENDIX C

The following table lists the counties in each MSA and the population density in square miles of land.

Salt Lake MSA		
County	**Density Rank**	**Population Density/Sq. Mile**
Salt Lake County	**1**	**1,218.40**
Summit County	**7**	**15.90**
Tooele County	**15**	**5.90**

Ogden-Clearfield MSA		
County	**Density Rank**	**Population Density/Sq. Mile**
Davis County	**2**	**784.90**
Morgan County	**11**	**11.70**
Weber County	**3**	**341.50**

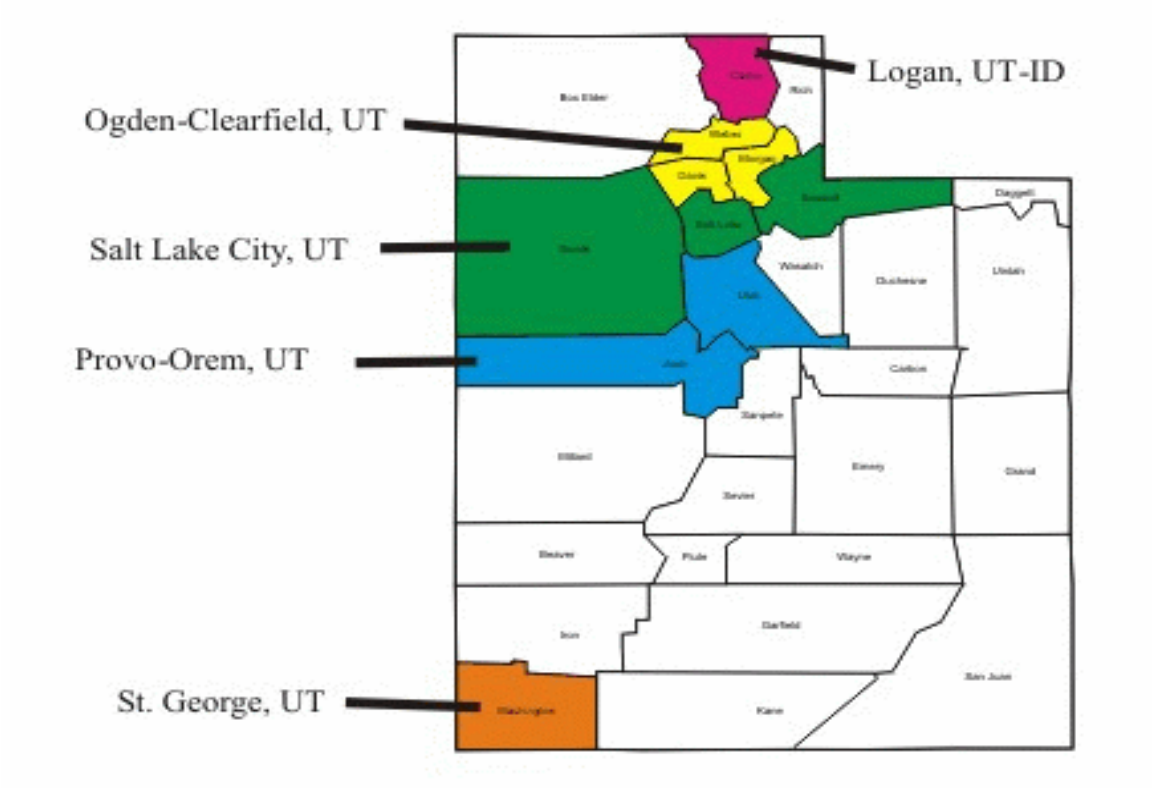
Provo-Orem MSA		
County	**Density Rank**	**Population Density/Sq. Mile**
Juab County	**19**	**2.40**
Utah County	**4**	**184.40**

Logan MSA		
County	**Density Rank**	**Population Density/Sq. Mile**
Cache County	**5**	**78.50**
Franklin County,		**15.6**

Idaho		

St. George MSA		
County	**Density Rank**	**Population Density/Sq. Mile**
Washington County	**6**	**37.20**

APPENDIX D


Logan, UT-ID
Ogden-Clearfield, UT
Salt Lake City, UT
Provo-Orem, UT
St. George, UT